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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/433,062 | 11/03/1999 | Thomas A. Skupien | MEMS-038 | 2000 |

7590 10/24/2002
Todd M. Becker
Blakely Sokoloff Taylor & Zafman, LLP
12400 Wilshire Boulevard, 7TH FLOOR
Los Angeles, CA 90025-1030

EXAMINER

ROY, SIKHA

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2879

DATE MAILED: 10/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

PS

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|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/433,062 | SKUPIEN, THOMAS A. | |
| | Examiner | Art Unit | |
| | Sikha Roy | 2879 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The Amendment, filed on July 30, 2002 has been entered and is acknowledged by the Examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7,8,10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent 5,394,054 to Chen et al. in view of U. S. Patent 5,990,610 to Matsumoto et al.

Regarding claims 7,8 and 10 Chen et al. disclose (column 4 lines 48-67, column 2 lines 15-34, Fig.4) a cathode ray tube 78 including a neck portion and a funnel portion, comprising of a plurality of conductive stem pins 36 at the end of the neck portion and electron gun 60 positioned in the neck including triode comprising a heated cathode 62 for emitting electrons, a biasing electrode G1 and an accelerating electrode G2 forming

beam 73. The second accelerator electrode (G3 grid 68), a cylindrical element smaller in diameter than the neck is connected to anode potential V_A . The focus electrode (G4 grid 70) is coupled to and charged by a focus voltage V_F , where $V_F < V_A$. The final accelerator electrode (G5 grid 72 connected to the conductive coating by spring 48 Fig.4) comprising a conductive coating 46 disposed on the inner surface of the neck and

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funnel of the glass envelope is connected to high anode voltage V_A via the anode button 44 in the neck.

Chen et al. disclose (column 2 lines 20-25) the neck portion of CRT fitted to a base member comprising plurality of conducting pins 36. Pins extend through an end and are electrically coupled to various electrodes. Pins are further coupled to power supply for providing voltages V_F , V_A . Chen et al. do not disclose the focus electrode connected to low voltage stem pin and accelerator electrode connected to an isolated stem pin. It is well known in the art as is evidenced by Matsumoto et al. (column 8 lines 42-45 Fig. 5A) that the plurality of stem pins include a high voltage stem pin 3B and rest the lower voltage stem pins 3A, 3C. It would have been obvious to one having ordinary skill in the art at the time of invention to connect the accelerating electrode to high voltage V_A through the isolated high voltage stem pin and focusing electrode to focus voltage V_F through the low voltage stem pin.

Claims 9, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent 5,394,054 to Chen et al. in view of U. S. Patent 5,990,610 to Matsumoto et al. and further in view of U. S. Patent 5,077,498 to Odenthal.

Odenthal in analogous art of cathode ray tube with Einzel focus lens disclose (column 2 lines 40,41, column 3 lines 51,52, column 5 lines 18,19) the high voltage potential equal to 12 kilovolts. It is noted that this high voltage potentials applied to the accelerating electrode through the anode button focuses the electron beam toward the target surface.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to specify the anode potential of the CRT of Chen et al. equal to 12 kilovolts as suggested by Odenthal for focusing the electron beam toward the target.

Referring to claim 12 Chen et al. and Matsumoto disclose all the claimed limitations except the second and the accelerator electrode connected to anode potential equal to 12 kilovolts. Odenthal discloses the second electrode and the accelerating electrodes connected to 12 kilovolts through anode button for focusing the electron beam with reduced spherical aberration. It would have been obvious to include the anode potential of 12 kilovolts as disclosed by Odenthal for focusing the electron beam toward the target.

Response to Arguments

Applicant's arguments filed July 30, 2002 have been fully considered but they are not persuasive. In response to applicant's argument regarding claim 7 that Chen does not disclose internal conductive coating as a final accelerator electrode the Examiner respectfully disagrees. The Examiner notes that Chen discloses (column 3 lines 65,66 and column 4 lines 63-65) the second accelerating electrode (grid G5) is coupled to and charged by anode voltage. Hence the conductive coating, connected to the accelerating electrode is at the same accelerating anode potential and acts as the accelerating electrode. Furthermore, the Examiner submits that limitation regarding the final accelerator electrode recites 'comprising a continuous conductive coating' and hence the accelerator electrode can have a grid electrode in addition to the conductive coating.

In response to applicant's argument that Matsumoto discloses nothing related to CRTs the Examiner disagrees. Matsumoto discloses (abstract) stem base for providing high voltage or breakdown voltage between stem pins in a cathode ray tube, Figs 1A-1B, 2 (column 4 lines 25-35) disclose stem pins in the neck of a cathode ray tube. Hence teaching of Matsumoto is properly combined with that of Chen et al. relating to construction of a CRT.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (703) 308-2826. The examiner can normally be reached on Monday-Friday 8:00 a.m.-4:30 p.m.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (703) 305-4794. The fax phone number for the organization is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Sikha Roy
Patent Examiner
Art Unit 2879



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SUPERVISORY PATENT EXAMINER
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